SAFS NAMING
AND
PROJECT INTERFACE CONVENTIONS

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I. Distribution Method

There are four defined types of interactions possible between the TM Processors, Station SAFS (S SAFS), Central SAFS (C SAFS), and customers. These types are dependent on the project and station SAFS used.

Type 1: Uses SAFS file naming convention, with distribution from the C SAFS:

a. TM Processor pushes file to S SAFS using ***safsFileName***.
b. S SAFS pushes file to C SAFS using ***safsFileName***.
c. C SAFS transfers file to customer using ***safsFileName***.
d. Events logged using ***safsFileName,*** and files archived using ***safsFileName***.

Type 2: Uses Project file naming convention, with distribution form the C SAFS:

a. TM Processor pushes file to S SAFS using ***projectFileName=safsFileName=.***
b. S SAFS pushes file to C SAFS using ***projectFileName=safsFileName=.***
c. C SAFS transfers file to customer using ***projectFileName,***
d. Events logged using ***projectFileName=safsFileName=***, and files archived using ***projectFileName***.

Type 3: Uses Project file naming convention, with distribution from S SAFS:

a. TM Processor pushes file to S SAFS using ***projectFileName=safsFileName=***.
b. S SAFS transfers file to customer using ***projectFileName.***
c. Events logged using ***projectFileName=safsFileName=***, and files archived using ***projectFileName***.

Type 4: Uses Project file naming convention, with distribution from both the S SAFS and the C SAFS:

a. TM Processor pushes file to S SAFS using ***projectFileName=safsFileName=***.
b. S SAFS transfers files to customer using ***projectFileName.***
c. S SAFS pushes file to C SAFS using ***projectFileName=safsFileName=***.
d. C SAFS transfers file to customer using ***projectFileName***.
e. Events logged using ***projectFileName=safsFileName=***, and files archived using ***projectFileName***.

II. Specific Project parameters

1. QuikSCAT – TYPE 1, all stations except ASF.
    a. project identifier, 3 characters, as defined by Wallops Scheduling: qst
    b. data types and 3 character abbreviations:
        - housekeeping 1 = hk1
        - housekeeping 2 = hk2
        - science = sci
    c. file types and 3 character abbreviations:
        - data = .dat
        - metadata = .mta

2. ADEOS II – TYPE 2 at WGS, GSFC, and TYPE 3 at ASF.
    a. project identifier, 3 characters, as defined by Wallops Scheduling: ad2
    b. data types and 3 character abbreviations:
        - AMSR MDR = ams
        - DCS MDR = dcs
        - DCS MRT = dcs
        - DMS1 MDR = dms
        - DMS1 MRT = dms
        - DMS2 MDR = dms
        - DMS2 MRT = dms
        - GLI-1K MDR = g1i
        - GLI-1K MRT = g1i
        - HK MDR = hkm
        - ILAS MDR = ila
        - SW MDR = swm
        - TEDA MDR = ted
        - VMS MDR = vms
        - VMS MRT = vms
    d. file types and 3 character abbreviations:
        - data = .dat
        - metadata = .mta

3. SAGE III – TYPE 1 at WGS, GSFC.
    a. project identifier, 3 characters, as defined by Wallops Scheduling: sm3
    b. data types and 3 character abbreviations:
        - RAW = raw
    c. file types and 3 character abbreviations:
        - data = .dat

4. EO-1 – TYPE 1 at all stations except ASF.
    a. project identifier, 3 characters, as defined by Wallops Scheduling: eo1
    b. data types and 3 character abbreviations:
        - VC 1 = c01
        - VC 2 = c02
        - VC 3 = c03
        - VC 4 = c04
        - VC 6 = c06
        - VC 7 = c07
        - VC 8 = c08
        - VC 9 = c09
        - VC 11 = c11
        - VC 12 = c12

- VC 14 = c14

c. file types and 3 character abbreviations:
   - data = .dat
   - metadata = .mta

5. ICESat – TYPE 1, all stations except ASF.
   a. project identifier, 3 characters, as defined by Wallops Scheduling: ice
   b. data types and 3 character abbreviations:
      housekeeping 1 = hk1
   c. file types and 3 character abbreviations:
      - data = .dat
      - metadata = .mta

	Project	Identifier*	Type	GS	Data Type(s)		File Type(s)	
1	QuikSCAT	qst	1	AGS SGS MGS WGS GSFC	Housekeeping1 Housekeeping2 Science	hk1 hk2 sci	Data Metadata	.dat .mta
2	ADEOS II	ad2	2 3	WGS GSFC ASF	AMSR MDR DCS MDR DCS MRT DMS1 MDR DMS1 MRT DMS2 MDR DMS2 MRT GLI-1K MDR GLI-1K MRT HK MDR ILAS MDR SW MDR TEDA MDR VMS MDR VMS MRT	ams dcs dcs dms dms dms dms gli gli hkm ila swm ted vms vms	Data Metadata	.dat .mta
3	SAGE III	sm3	1	WGS GSFC	RAW	raw	Data	.dat
4	EO-1	eo1	1	AGS SGS MGS WGS GSFC	VC 01 VC 02 VC 03 VC 04 VC 06 VC 07 VC 08 VC 09 VC 11 VC12 VC 14	c01 c02 c03 c04 c06 c07 c08 c09 c11 c12 c14	Data Metadata	.dat .mta
5	ICESat	ice	1	AGS SGS MGS WGS GSFC	Housekeeping1	hk1	Data Metadata	.dat .mta

* Defined by Wallops Scheduling

III. SAFS File Naming Convention

The SAFS file naming convention is defined as follows:

Where:

ProjectID	Project Identifier as defined by Wallops Scheduling
Pass Recording Start Time	YYYYMMDDHHMMSS
YYYY	Year
MM	Month
DD	Day of Month
HH	Hour (24 hour clock)
MM	Minutes
SS	Seconds
TMprocessorID	P [PTP sequence – 2 digit number] D [Data stripper sequence – 2 digit number]
Type	Data type (Example: for QuikSCAT: sci/hk1/hk2)
Ext	Extension (3 characters) dat (data) mta (metadata) flg (flag file – see section IV below)

Example 1:

SAFS file name for QuikSCAT:	qst19981125132245p01sci.dat
ProjectID	qst
Pass Recording StartTime:	
Year	1998
Month	11
Day of Month	25
Hour (24 hour clock)	13
Minutes	22
Seconds	45
TMprocessorID	p01
Type	sci
Ext	dat

Example 2:

SAFS file name for ADEOS II:	ad219991201081532d01dcs.mta
ProjectID	ad2
Pass Recording StartTime:	
Year	1999
Month	12
Day of Month	01
Hour (24 hour clock)	08
Minutes	15
Seconds	32
TMprocessorID	d01
Type	dcs
Ext	mta

IV. Telemetry Processor to SAFS Interface Requirements

The requirements for the interface between the Standard Autonomous File Server (SAFS) and the Telemetry Processor (TMP) are as follows:

1. The TMP will transfer files to specific SAFS directories by project and file types, using project parameters from section II above. The SAFS file destination path structure will be:

   /raid1/safs/**ProjectID**/**Type**

   Example 3: /raid1/safs/qst/sci/

2. If a metadata file is associated with a data file, it will be sent to the same directory as its corresponding data file.

   Example 4: The QuikSCAT files qst19991201081532p02hk2.dat and qst19991201081532p02hk2.mta would both be sent to the SAFS directory /raid1/safs/qst/hk2.

3. If the TMP is **not** using FASTCopy to transfer files to the SAFS, then **after** the data/metadata files are transferred to a SAFS directory, a flag file must be sent to the same SAFS directory to indicate completion of the data/metadata transfers. The flag file must have the same file name, but with an extension of **.flg**. This flag file will contain the names of the data and metadata files on the same line and separated by a space.

   Example 5: After the QuikSCAT files **qst19980213134522p01sci.dat** and **qst19980213134522p01sci.mta** are sent to the SAFS, the file **qst19980213134522p01sci.flg** will be sent as the flag file for the pair and will contain the following:
   qst19980213134522p01sci.dat qst19980213134522p01sci.mta

   Example 6: After the SAGE III file **sm319991022011657p01raw.dat** is sent to the SAFS, the file **sm319991022011657p01raw.flg** will be sent as the flag file and will contain the following:
   sm319991022011657p01raw.dat

NOTE: If the TMP is using FASTCopy to transfer files to the SAFS, flag files are not required, but may be used.

V. Data Exchange Protocol

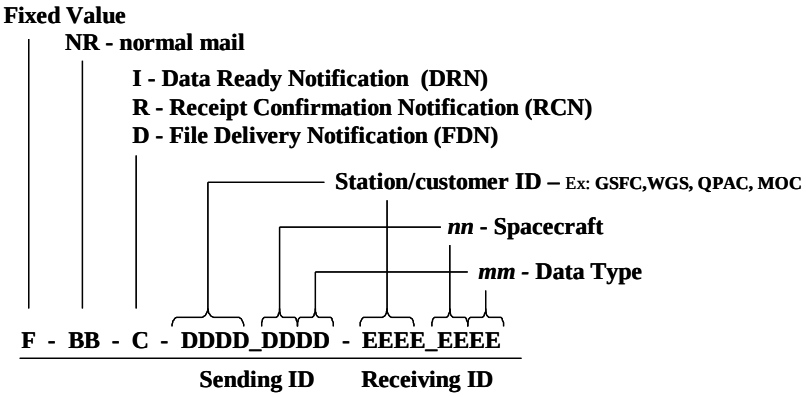
Types of Messages			
TYPE	DIRECTION	PROTOCOL	DESCRIPTION
DRN	Customer "pulls"	E-mail	Server sends an E-mail message to inform "pull" customers that data is ready at server for transfer.
RCN	All Customers	E-mail	All customers send an E-mail message to inform the server when data is received, and the status of the transfer.
FDN	Server "pushes"	E-mail	Server sends an E-mail message to inform "push" customers that their data has been delivered, and the status of the transfer.

VI. E-mail Formats

The E-mail message consists of a subject and message area.

a) The subject area has the same format for all message types:

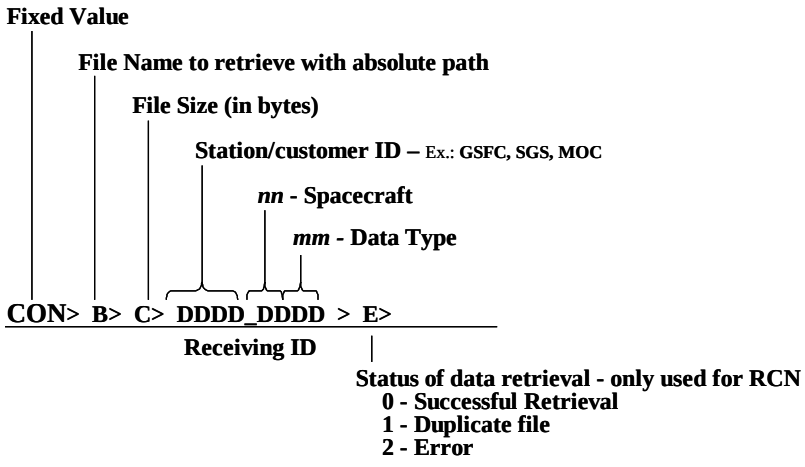
SUBJECT:



b) The message area for DRN (Data Ready Notification) and RCN (Receipt Confirmation Notice) message types is as follows, and has a single content line:

Message Content:

< BOM>

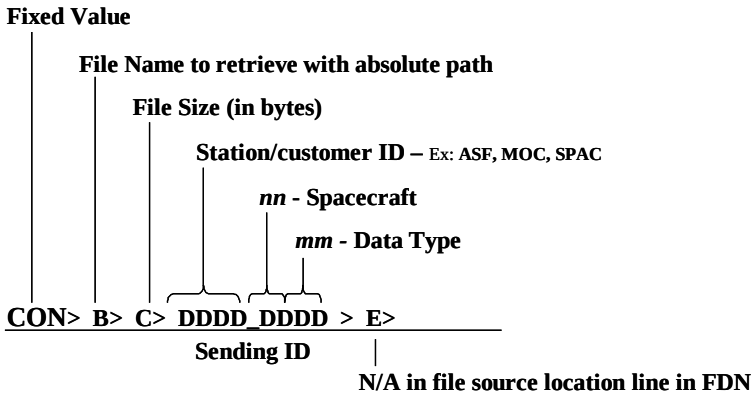


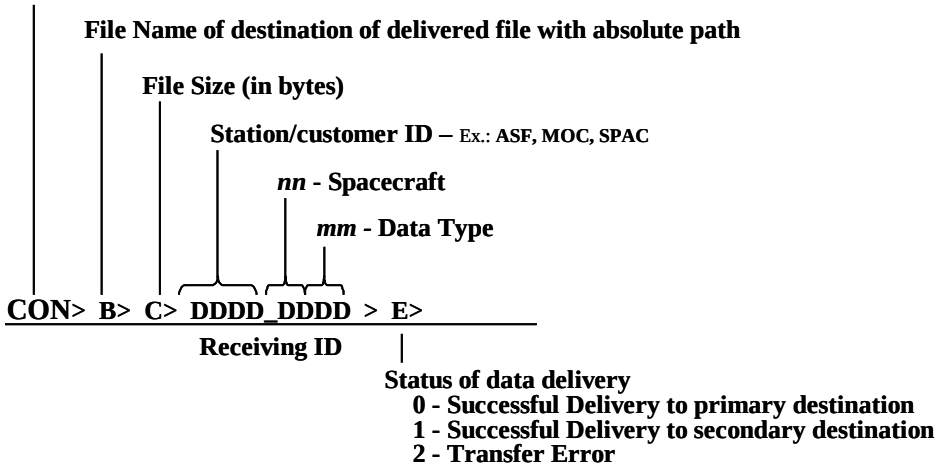
< EOM>

c) the message area for the FDN (File Delivered Notification) message type is as follows, and has two content lines:

Message Content:

< BOM>





< EOM>

VII. Transfer Protocols

DATA DIRECTION	PROTOCOL	PROCEDURES
Customer "pulls"	FTP or COTS	1) server sends DRN to customer before transfer. 2) customer "pulls" file and sends RCN to server after transfer.
Server "pushes"	COTS	1) server sends FDN to customer after file transfer: a) if transfer not successful to customer's primary destination after *n* tries, then • server sends FDN to customer's primary destination with failure status. • file is transferred to customer's secondary destination b) if transfer not successful to customer's secondary destination after *n* tries, then • server sends FDN to customer's secondary destination with failure status. • server sends FDN to customer's tertiary destination with failure status and info for customer "pull" of file. 2) customer sends RCN to server after transfer.